

## COLLAPSIBLE REFUSE CAN

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

5 This invention relates to a collapsible refuse can, particularly to one collapsible for convenience of transporting, storing, and displaying and quick to assemble together,

#### 2. Description of the Prior Arts

10 Refuse cans are indispensable for our daily life, and there are many kinds of refuse cans in use and on the market for different uses, generally consisting of a can body and a liftable cap.

15 However, almost conventional refuse cans are made integral to have a certain size impossible to be collapsed to a small size, quite unfavorable for storing, carrying, transporting, etc.

### SUMMARY OF THE INVENTION

This invention has been devised to offer a  
20 collapsible refuse can to improve conventional refuse cans impossible to be collapsed.

The feature of the invention is a can body consisting of two half shells, and a bottom closely combined with the can body, and a pedal moving a cap  
25 opening member for opening a cap.

### BRIEF DESCRIPTION OF DRAWINGS

This invention will be better understood by

referring to the accompanying drawings, wherein:

Figure 1 is an exploded perspective view of a collapsible refuse can in the present invention;

5 Figure 2 is a bottom view of the collapsible refuse can in the present invention;

Figure 3 is a rear view of the collapsible refuse can in the present invention;

Figure 4 is a first cross-sectional view of the collapsible refuse can in the present invention;

10 Figure 5 is a second cross-sectional view of the collapsible refuse can in the present invention; and,

Figure 6 is a cross-sectional view of a fixing member in the present invention.

#### DETAILED DESCRIPTION OF THE PREFERRED 15 EMBODIMENT

A preferred embodiment of a collapsible refuse can in the present invention, as shown in Figs. 1 - 6, includes a can body 2 consisting of two half shells 21, a bottom 1, a pedal 14, and a cap opening member 15, a fix frame 24 and a cap 26 and plural bag hangers 3 as main components.

The two half shells 21 are shaped as U and combined together to form the can body 2 with an open upper and an open lower side, having an inner vertical hook strip 221 formed respectively at two vertical end edges for an elongate hooking strip 222 to respectively hook with the two inner vertical hooking strips 221 to

combine the two half shells 21 together to form the can body 2, which has two holes 25 spaced apart in a lower portion of a front side.

The bottom 1 is made integral, fitting in a lower 5 portion of the can body 2, having two square holes 11 spaced apart properly in a front side for two ends of the pedal 14 to pass through, and a through hole 16 provided vertically in a rear center portion for the cap opening member 15 to pass up through, a vertical groove 12 10 respectively formed in two opposite sides for the elongate hook strip 22 to hook therein, a hole 13 respectively in two opposite sides aligned to the holes 142 in two ends of the pedal 14 for rivets to combine the pedal 14 with the bottom 1.

15 The pedal 14 is made of an elongate curved rod, having two ends passing through the two holes 25 of the can body 2 and the two holes 11 of the bottom 1 and then combined with the bottom 1 with the rivets 143 fitting in the holes 142 and 13.

20 The cap-opening member 15 a double L-shaped elongate rod having a lower end provided with male threads 151 to pass through a hole 141 of the pedal 14 and then screwed with a nut 152 and a washer 153 tightly. Then the upper end of the cap-opening member 15 passes 25 upward through the hole 16 of the bottom 1, and then pivotally connected with the cap 26.

The bag hangers 3 respectively have a position

member 31 with a curved portion 32 and a lower saw-toothed pinching portion 34, and a bendable member 33 with a groove portion 35 and a sidewise shaft. The positioned member 31 is fixed firmly on an inner periphery of the fix frame 24. The sidewise shaft of the bendable member 33 is formed at a rear end to be kept rotatably in the curved portion 32 to permit the bendable member 33 pushed to swing down with the sidewise shaft as a pivot to fit on the lower saw-toothed pinching portion 34 of the fixing member 31 so that an upper end of a refuse bag may be sandwiched between the lower pinching portion 34 and the groove portion 35 of the bendable member 33 to be hung in the refuse can.

In assembling, firstly, the two half shells 21 are combined together by hooking the two hooking strips 222 with the inner hooking strips 221, with the lower end of the hooking strips 222 fitting in the grooves 12 of the bottom 1 when the bottom 1 is fitted in the lower portion of the can body 2. After the can body 2 and the bottom 1 are combined together, the holes 25 of the can body 2 are aligned with the two holes 11 of the bottom 1, and then the pedal 14 is pushed in the bottom 1, with the two ends of the pedal 14 respectively passing through the two sets of the holes 11 and 25. Then the two holes 142 of the pedal 14 and the holes 13 of the bottom 1 are aligned for the rivets 143 to fit in the holes 142 and 13 to secure the pedal 14 with the bottom 1. Next, the cap opening

member 15 is combined firmly with the pedal 14, by the nut 152 with the washer 153 screwed stably with the lower end with the male threads 151 of the cap opening member.

5        In using, as shown in Figs. 4 and 5, when the pedal 14 is stepped down, the cap opening member 15 is moved by the pedal 14 to have its upper end push up the cap 26, and refuse can be thrown in a refuse bag hung in the can body 2. To close the cap 26, releasing the foot stepping 10 down the pedal 14 can attain the objective, as the cap 26 has a weight to fall down to close up the can body 2.

While the preferred embodiment of the invention has been described above, it will be recognized and understood that various modifications may be made 15 therein in and the appended claims are intended to cover all such modifications that may be covered by the spirit and scope of the invention.